

Priority Problem Five:

EUTROPHICATION

Eutrophication is a natural process that may be accelerated by human activities. It begins when too many nutrients (phosphates and nitrates) are flushed into a water body. These nutrients encourage rapid algae growth. When the algae die, the process of decomposition uses up varying amounts of the available oxygen. With low oxygen levels, larger plants and animals begin to suffocate and die.

There are activities outside the Barataria-Terrebonne estuary that contribute to excessive nutrient levels in the Gulf. Springtime thawing of snow and ice in the nation's heartlands causes the Mississippi and Atchafalaya rivers to surge with nutrients from many sources, including agricultural fertilizers, sewage, industrial discharges, and fertilizers from suburban lawns and golf courses.

Severe eutrophication, whether natural or accelerated by humans, may cause fish kills when oxygen levels fall too low. Fish kills may occur in inland waters after hurricanes and other severe storms strip the leaves from plants and overload the waterways with dying vegetation, which depletes oxygen as it decomposes.

An algal bloom is a rapid increase in the numbers of algae (microscopic plants) in an area. These blooms are thought to be caused by an increased nutrient load (phosphates and nitrates) associated with eutrophication. Some coastal algal blooms, also known as red tides, produce toxic materials and may cause illness in humans who eat shellfish that are contaminated with these toxins. In Louisiana there have been no known problems from consuming algal toxins in fish or shellfish. However, because of increased eutrophication, toxic algal blooms could become more prevalent.



Eutrophication Sources

Many human activities in the Barataria-Terrebonne estuary area contribute to nutrient loading, and consequently to eutrophication in lakes, bays, and the Gulf. Agricultural practices (using pesticides and fertilizers) are a primary source of nutrient loading through runoff from pastureland, cropland, feedlots, and aquaculture. Other sources include sewage discharge from city systems and sewage runoff from subdivisions, rural areas, and unsewered communities. Fallout from air pollution is also a contributor.

